



SEQUENCE LISTING

<110> Li, Zhijian T
Gray, Dennis J

<120> Bi-Directional Dual Promoter Complex with Enhanced Promote
Activity for Transgene Expression in Eukaryotes

<130> 7270-72978

<140> 10/075,105

<141> 2002-02-13

<150> 60/268,358

<151> 2001-02-13

<160> 18

<170> PatentIn version 3.1

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ataaaattat attaattctg tctcttggtg gttcgctcta tctttttctg ttttctgct
480

tcaaccataa catatacaag aactacattt tccaagctag atatatctaa catgactgac
540

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 660
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 720
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 780
 ctcatthaact taaaagaaga tatagactca ttaacttaaa agaagatata gattccaaca
 840
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 900
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 1020
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 1080
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 1140
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 1260
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 1320
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 1380
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 1440
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<210> 12
<211> 1544
<212> DNA
<213> unknown

<220>
<223> Unknown Organism

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120

tcgaagtctg agtaattgaa ttttcttcta tatctgagta attgaatttt cttctatatc
180

taaggttgtg ttcaagtttt aagtatttgc agttagaacc gatttaaaga cttgtagtta
240

cgtaaggaaa ttttatatct attattcaat cctacaacag tgaaagaatt tcgtataagg
300

ctgactcaga ccattcttaga gtatttgaaa tccggaatag agaagttaat ccgttaatga
360

atggaggcga gatgaaattc ttttaagtta cctcatgtgg taataattca agtatatttt
420

tattttaata taattaagac agagaacaac caagcgagat agaaaaagac aaaaggacga
480

agttggtatt gtatatgttc ttgatgtaaa aggttcgata tatatagatt gtactgactg
540

aaacatttaa agaaaacggt tcaatttctt ttttttacta caataggttt attatttctc
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720

agaaactgaa attgtgatta cagtatacga aagtttaatt attaggctat ttcgacgtct
780

gagtaattga attttcttct atatctgagt aattgaattt tcttctatat ctaagggtgt
840

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960

accatcttag agtatttgaa atccggaata gagaagttaa tccgttaatg aatggaggcg
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1080

ataattaaga cagagaacaa ccaagcgaga tagaaaaaga caaaaggacg aagttggtat
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1200

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1260

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1380

aattgtgatt acagtatacg aaagtttaatt tattaggcta tttcagacga ttgtacactg
1440

aaagggttaaa aaaagaaaat gtttaacgtc tgaaaagttg agaataaggg ataattttgg
1500

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1544

<210> 13
<211> 1465
<212> DNA
<213> unknown

<220>

<223> Unknown Organism

<400> 13

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120

taccacaaaa gcttagttga taaaatattt ttatttggtt gtaattttgt aatatcccg
180

gatatttcac aaattgaaca tagactacag aattttagaa aacaaacttt ctctctctta
240

tctcaccttt atctttttaga gagaaaaagt tcgatttccg gttgaccgga atgtatcttt
300

gttttttttg ttttgtaaca tatttcggtt tccgatttag atcggatctc cttttccggt
360

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420

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480

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540

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660

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720

gtgggctggg ctttctgcag ttgataaaat atttttattt ggttgtaatt ttgtaatatc
780

ccgggatatt tcacaaattg aacatagact acagaatttt agaaaacaaa ctttctctct
840

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900

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960

cgttttgtcg gaccttcttc cggtttatcc ggatctaata atatccatct tagacttagc
1020

taagtttgga tctgtttttt ggttagctct tgtcaatcgc ctcacatca gcaagaaggt
1080

gaaatttttg acaaataaat cttagaatca tgtagtgtct ttggaccttg ggaatgatag
1140

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1200

ggttttgtgc atatgaaacc ttcgactaac gagaagtggc cttttaatga gagagatc
1260

taaaatgtta tcttaaaagc ccaactcaa cccaagcat aaggtagaaa tgcaaatttg
1320

gaaagtgggc tgggcctttt gtggtaaagg cctgtaacct agcccaatat tagcaaaacc
1380

ctagacgcgt acattgacat atataaacc gcctcctcct tgtttagggg ttctacgtga
1440

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1465

<210> 14
<211> 1465
<212> DNA
<213> unknown

<220>
<223> Unknown Organism

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120

atggtgtttt cgaatcaact attttataaa aataaaaccaa cattaaaaca ttatagggcc
 180
 ctataaagtg tttaacttgt atctgatgtc ttaaaatctt ttgtttgaaa gagagagaat
 240
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 420
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 480
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 540
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 aacacgtata ctttggaagc tgattgctct tcaccagaaa attactctct ctatagattt
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 720
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 780
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 840
 gaatagagt gaaatagaaa atctctcttt ttcaagctaa aggccaactg gccttacata
 900
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 960
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 1020
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 1080

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1140

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1200

ccaaaacacg tatacttttg aagctgattg ctcttcacca gaaaattact ctctctatag
1260

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1320

ctttcacccg acccggaaaa caccatttcc ggacattgga tcgggttata atcgttttgg
1380

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1465

<210> 15
<211> 1618
<212> DNA
<213> unknown

<220>
<223> Unknown Organsim

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ttacaccaaa ttttttcttg ttttcacaaa tgccgaactt ggttccttat ataggaaaac
120

tcaagggcaa aaatgacacg gaaaaatata aaaggataag tagtggggga taagattcct
180

ttgtgataag gttactttcc gaagcttagt tgataaaata tttttatttg gttgtaattt
240

tgtaatatcc cgggatattt cacaaattga acatagacta cagaatttta gaaaacaaac
300

tttctctctc ttatctcacc tttatctttt agagagaaaa agttcgattt ccggttgacc
360

ggaatgtatc tttgtttttt ttgttttgta acatatctcg ttttccgatt tagatcggat
 420

ctccctttcc gttttgtcgg accttcttcc ggtttatccg gatctaataa tatccatctt
 480

agacttagct aagtttggat ctgttttttg gtttagctctt gtcaatcgcc tcatcatcag
 540

caagaagggtg aaatttttga caaataaatc ttagaatcat gtagtgtctt tggaccttgg
 600

gaatgataga aacgatttgt tatagctact ctatgtatca gaccctgacc aagatccaac
 660

aatctcatag gttttgtgca tatgaaacct tcgactaacg agaagtgggc ttttaatgag
 720

agagatatct aaaatgttat cttaaaagcc cactcaaac tcaaggcata aggtagaat
 780

gcaaatttgg aaagtgggct gggccttctg cagttgataa aatattttta tttggttgta
 840

attttgtaat atcccgggat atttcacaaa ttgaacatag actacagaat tttagaaaac
 900

aaactttctc tctcttatct cacctttatc ttttagagag aaaaagttcg atttcoggtt
 960

gaccggaatg tatctttggt ttttttggtt tgtaacatat ttcgttttcc gatttagatc
 1020

ggatctcctt ttccgttttg tcggaccttc ttccggttta tccggatcta ataatatcca
 1080

tcttagactt agctaagttt ggatctgttt tttggttagc tcttgtcaat cgcctcatca
 1140

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 1200

ttgggaatga tagaaacgat ttgttatagc tactctatgt atcagaccct gaccaagatc
 1260

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 1320

tgagagagat atctaaaatg ttatcttaaa agccactca aatctcaagg cataaggtag
1380

aaatgcaaat ttggaaagtg ggctgggcct tggtaaccgg aaagtaacct tatcaciaag
1440

gaatcttata cccactact tatcctttta tttttttccg tgtcattttt gcccttgagt
1500

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1560

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1618

<210> 16
<211> 1618
<212> DNA
<213> unknown

<220>
<223> Unknown Organism

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120

agttcccggt tttactgtgc ctttttatat tttcctattc atcacccctt attctaagga
180

aacactattc caatgaaagg cttcgaatca actattttat aaaaataaac caacattaaa
240

acattatagg gccctataaa gtgtttaact tgtatctgat gtcttaaaag cttttgtttg
300

aaagagagag aatagagtgg aaatagaaaa tctctctttt tcaagctaaa ggccaactgg
360

ccttacatag aaacaaaaaa aacaaaacat tgtataaagc aaaaggctaa atctagccta
420

gaggaaaagg caaacagcc tggaagaagg ccaaataaggc ctagattatt ataggtagaa

480

tctgaatcga ttcaaacct gacaaaaaac caatcgagaa cagttagcgg agtagtagtc
540

gttcttccac tttaaaaact gtttatttag aatcttagta catcacagaa acctggaacc
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cttactatct ttgctaaaca atatcgatga gatacatagt ctgggactgg ttctagggtg
660

ttagagtatc caaaacacgt atactttgga agctgattgc tcttcaccag aaaattactc
720

tctctataga ttttacaata gaattttcgg gtgagtttag agttccgtat tccatcttta
780

cgtttaaacc tttcacccga cccggaagac gtcaactatt ttataaaaat aaaccaacat
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900

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960

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agaatctgaa tcgattcaaa cctagacaaa aaaccaatcg agaacagtta gcggagtagt
1140

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1200

aacccttact atctttgcta aacaatatcg atgagatata tagtctggga ctggttctag
1260

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1320

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1380

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1440

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1500

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1560

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1618

<210> 17

<211> 1524

<212> DNA

<213> unknown

<220>

<223> Unknown Organism

<400> 17

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aaggatagtg ggattgtgcg tcattccctta cgtcagtga gatactgcag aagcttcaga
120

ctcattaact taaaagaaga tatagactca ttaacttaaa agaagatata gattccaaca
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caagttcaaa attcataaac gtcaatcttg gctaaatttc tgaacatcaa tgcattcctt
240

taaaatatag ataataagtt aggatgttgt cactttctta aagcatattc cgactgagtc
300

tggtagaatc tcataaactt taggccttat ctcttcaatt aggcaattac ttacctccgc
360

tctactttta gaaaattcaa tggagtacac cattattaag ttcataaaa aataaaatta
420

tattaattct gtctcttggt ggttcgctct atctttttct gttttcctgc ttcaaccata
480

acatatcaa gaactacatt ttccaagcta gatatatcta acatgactga ctttgtaa
540

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 660

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 780

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 1080

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 1140

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 1200

caagttaaag aaaaaaatg atgttatcca aataataaag agaaagagcc ctaatgaaaa
 1260

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 1320

gactaatggc ggctcttatc tcacgtgatg tgacattgaa attctttgac tttaacacta
 1380

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 1440

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1524

<210> 18
<211> 1524
<212> DNA
<213> unknown

<220>
<223> Unknown Organism

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120

gagtaattga attttcttct atatctgagt aattgaattt tcttctatat ctaaggttgt
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gttcaagttt taagtatttg cagttagaac cgatttaaag acttgtagtt acgtaaggaa
240

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300

accatcttag agtatttgaa atccggaata gagaagtta tccgttaatg aatggaggcg
360

agatgaaatt cttttaagtt acctcatgtg gtaataattc aagtatatatt ttattttaat
420

ataattaaga cagagaacaa ccaagcgaga tagaaaaaga caaaaggacg aagttggtat
480

tgtatatggt cttgatgtaa aagggttcgat ctatatagat tgtactgact gaaacattta
540

aagaaaagcc ttcaatttct tttttttact acaatagggtt tattatttct ctttctcggg
600

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660

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720

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780

aattttcttc tatatctgag taattgaatt ttcttctata tctaagggtg tgttcaagtt
840

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900

ctattattca atcctacaac agtgaaagaa tttcgtataa ggctgactca gaccatctta
960

gagtatttga aatccggaat agagaagtta atccgttaat gaatggaggc gagatgaaat
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1080

acagagaaca accaagcgag atagaaaaag acaaaaggac gaagttggta ttgtatatgt
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1200

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1260

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1320

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1380

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1500

taaacctctc ctgtgcgacc tagg
1524